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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,588	10/24/2003	Seog-soon Back	249/417	7314

7590 05/27/2004  
LEE & STERBA, P.C.  
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1101 Wilson Boulevard  
Arlington, VA 22209

EXAMINER

DO, AN H

ART UNIT PAPER NUMBER

2853

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,588

Applicant(s)

BAEK ET AL.

Examiner

An H. Do

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/24/03 & 3/9/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group I, claims 1-4 in Paper filed on 12 May 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 9-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper filed on 12 May 2004.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

4. The information disclosure statements (IDS) submitted on 24 October 2003 and 09 March 2004 were filed and are being considered by the examiner.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/682,961. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in both instant application and the copending application claiming the same subject matter of an inkjet printhead as shown in the following Comparison Table:

<u>U.S. Application No. 10/691,588 CLAIM</u>	<u>U.S. Application No. 10/682,961 CLAIM</u>
<p>1. An ink-jet printhead, comprising:</p> <p>a substrate on which an ink chamber to be supplied with ink to be ejected is formed on a front surface of the substrate, a manifold for supplying ink to the ink chamber is formed on a rear surface of the substrate, and an ink passage in communication with the ink chamber and the manifold is formed parallel to the front surface of the substrate;</p> <p>a nozzle plate formed on the front surface of the substrate;</p> <p>a nozzle formed through the nozzle plate through which ink is ejected from the ink chamber;</p> <p>a heater formed on the nozzle plate; and</p> <p>an electrode electrically connected to the heater for applying current to the heater.</p>	<p>1. An ink-jet printhead, comprising:</p> <p>a substrate having an ink chamber on a front surface thereof, the ink chamber to be supplied with ink to be ejected, a manifold for supplying ink to the ink chamber on a rear surface thereof, and an ink channel in communication with the ink chamber and the manifold;</p> <p>an impurity filtering layer formed on the rear surface of the substrate between the manifold and the ink channel for filtering impurities in ink flowing into the ink channel from the manifold;</p> <p>a nozzle plate formed on the front surface of the substrate;</p> <p>a nozzle formed through the nozzle plate at a position corresponding to a central part of the ink chamber;</p> <p>a heater formed on the nozzle plate, the heater being formed around the nozzle; and</p> <p>an electrode electrically connected to the heater for applying current to the heater.</p>

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented:

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (EP 1174268 A1).

Lee et al discloses in Figures 2-7 an ink-jet printhead (3), comprising: a substrate (100) on which an ink chamber (104) to be supplied with ink to be ejected is formed on a front surface of the substrate (100), a manifold (102) for supplying ink to the ink chamber on a rear surface thereof, and an ink channel (106) in communication with the ink chamber and the manifold; a nozzle plate (110) formed on the front surface of the substrate; a nozzle (160) formed through the nozzle plate at a position corresponding to a central part of the ink chamber; a heater (120) formed on the nozzle plate (110), the heater (120) being formed around the nozzle (160); and an electrode (140) electrically connected to the heater for applying current to the heater; wherein the ink chamber (104), the manifold (102), and the ink passage (106) are formed by an etch method (Figure 15, column 9, lines 17-20 and lines 52-58); the ink passage (106) is formed on a same plane as the ink chamber (104), and comprises an ink channel (106) in communication with the ink chamber (104) and a feed hole (not shown in Figures but is known as the ink supply means) in communication with the ink channel and the manifold.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Silverbrook (US 5,880,759) discloses an inkjet printhead having a heater layer formed on the nozzle plate. Drake et al (US 4,639,748) discloses an inkjet printhead with integral ink filter. Cielo et al (US 4,275,290) discloses a thermal printhead having heating elements formed in the orifices.

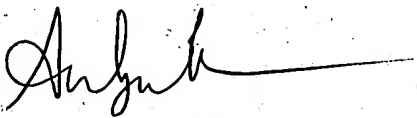
**Contact Information**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143.

The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



An H. Do  
May 24, 2004